

## 2.6 Supply-side policies: The role of supply-side policies, interventionist supply-side policies

### Learning Outcomes

- Explain that supply-side policies aim at positively affecting the production side of an economy by improving the institutional framework and the capacity to produce (that is, by changing the quantity and/or quality of factors of production).
- State that supply-side policies may be market-based or interventionist, and that in either case they aim to shift the LRAS curve to the right, achieving growth in potential output.
- Explain how investment in education and training will raise the levels of human capital and have a short-term impact on aggregate demand, but more importantly will increase LRAS.
- Explain how policies that encourage research and development will have a short-term impact on aggregate demand, but more importantly will result in new technologies and will increase LRAS.
- Explain how increased and improved infrastructure will have a short-term impact on aggregate demand, but more importantly will increase LRAS.
- Explain that targeting specific industries through policies including tax cuts, tax allowances, and subsidized lending promotes growth in key areas of the economy and will have a short-term impact on aggregate demand but, more importantly, will increase LRAS.

### What is the general aim of supply-side policies?

The aim is to increase the quantity and quality (productivity) of the **factors of production** in order to increase the **potential output** of the economy. Supply-side policies affect the quantity and quality of the factors thereby affecting the amount of goods and services that can be produced. Increases in the productive potential of the economy are shown as a shift to the right of the long-run aggregate supply curve and an outward movement of the **production possibility curve**. Supply-side policies are either interventionist or market-based.

### What are interventionist policies and why might they cause an increase in AD?

They are called interventionist supply-side policies because they require the government to take action in order to raise the quantity and quality of the factors. When a government intervenes it spends money, for example government expenditure on infrastructure is very high and it makes a big contribution to aggregate demand, shifting the AD curve to the right. The aim of supply-side policies is to shift the LRAS curve to the right. This might reduce the price level leading to an increase in expenditure. Increasing productivity can also lead to economic growth and a rise in national income leading to an increase in aggregate demand. Increasing factor productivity reduces average total cost thereby increasing international competitiveness and increasing the demand for exports, a part of AD.

### Explain how investment in education and training affects potential output

Education and training are merit goods. There are **positive externalities** created by consumption. Left to the **free market** the markets would fail. Not enough factors would be allocated to the provision of education and training and they would be underprovided and under consumed. Society would not enjoy all the benefits of a well-educated and well-trained population. The government therefore might intervene in the markets to ensure that more factors are allocated to the provision of education and training leading to an increase in the amount of education and training consumed. This increases the **value of human capital**. In all advanced countries the government provides education directly and it is available to all young people. Many governments subsidize further education to increase the number of young people who stay in education and training.

A modern successful economy requires a well-educated and skilled workforce. Giving workers the skills demanded by industries reduces **structural unemployment** thereby increasing the economy's potential output. Governments can help improve the skills of the workforce by giving subsidies to firms to provide training.

A well-educated and highly skilled workforce increases the productivity (quality) of labour. Therefore, potential levels of output increase, pushing the long-run aggregate supply curve to the right.

**Model sentence:** Increases in the value of human capital leads to a fall in occupational immobility and an increase in labour productivity, causing an increase in the potential output of the economy.

### Subject vocabulary

**factors of production** the inputs into the production process (land, labour, capital and entrepreneurship)

**potential output** the maximum output an economy can produce when all resources are efficiently employed

**production possibility curve** a curve showing the maximum possible output of two goods that an economy can produce when all resources are fully and efficiently employed

**positive externalities** occur when the production or consumption of a good causes benefits to third parties. The existence of positive externalities means that social benefit is greater than private benefit.

**free market** a market where the forces of demand and supply are allowed to operate without any forms of intervention

**value of human capital** a measure of the quantity and quality of the skills of the labour force that can be employed to produce goods and services. An increase in the value of human capital leads to an increase in labour productivity.

**structural unemployment** unemployment caused by a change in the type of labour firms demand. It is caused by a mismatch of the skills of those unemployed and the skills needed by firms.

## Subject vocabulary

**revenue** the income a firm receives from consumers in exchange for goods (revenue = price × quantity sold)

**capital** (goods) manufactured goods that are used in the production of other goods

**costs of production** the amount the firm pays for the factors of production used to produce goods or services

**private costs** the cost incurred by firms or consumers from their own production or consumption of a good

**property rights** laws concerning how people can control, benefit from and transfer property

**tax breaks** a reduction in the amount of tax that must be paid by an entrepreneur, firm, or industry in order to encourage economic activity. For example a reduction in the rate of corporate tax in order to increase FDI.

**quasi-public goods** goods that share some of the characteristics of public goods but are not fully non-excludable and non-rival. A road is an example. Most roads are free at the point of use but it is possible to make people pay through tolls and when traffic is heavy the amount available to others to use does begin to diminish so there can be rivalry in consumption.

**geographically immobile** describes workers who are unable to relocate in order to find work, often because of the high costs of moving

**infant industries** a new industry which often is not able to compete against established foreign industries and therefore needs to be protected from the competition through subsidies and tariffs

**tariff** a tax placed on imported goods and services

**economies of scale** the cost advantages gained by a firm from increasing the scale of its production. Average cost falls in the long run as the size of a firm's operation increases.

## Glossary

**arms industry** businesses that produce/provide weapons

Increases in labour productivity increases the amount of goods workers can produce in a given time period thereby increasing producer **revenue** from the sale of the goods. This increases the demand for the workers and pushes wages up. Higher wages lead to an increase in expenditure and an increase in aggregate demand.

## Explain how policies that encourage research and development affect potential output

Increases in productivity can also be achieved through the introduction of new production methods. Advances in technology increase the productivity of **capital** but these advances can only be made through research and development (R&D) which adds to **costs of production**. Firms will not pay the **private costs** of R&D if they do not think that they will receive enough private benefit, which is the extra revenue and profit gained from the use of the new technology. The government can guarantee **property rights** of any new development which might encourage firms to pay the costs of R&D. The government can increase the amount of research and development into new, more technologically advanced, capital by giving subsidies to firms to carry it out. Or the government might provide **tax breaks** to firms by not charging tax on profit that is used for R&D. Governments might also pay for R&D directly by spending money on research at universities.

**Model sentence:** Advances in technology increase the productivity of capital leading to an increase in the potential output of the economy and a shift to the right of the LRAS curve.

## Explain how investment in infrastructure can increase potential output

Infrastructure is the very large physical capital, such as schools, hospitals, airports, seaports railways, roads, communication networks, water and energy supply, and national defence and security. Economic growth is dependent on infrastructure. Poor countries find it difficult to grow because of the lack of good quality infrastructure. These capital goods are public goods, **quasi-public goods**, or merit goods, therefore the government is nearly always involved in providing them. An improved transport system will allow goods to be moved more quickly reducing transport costs for firms. People can get to work more quickly and in greater numbers. **Geographical immobility** would be reduced if people are able to get to where the jobs are. Hospitals and schools help to improve productivity of labour and a modern communications network is essential for business to operate effectively. Improved infrastructure can reduce costs of production and increase productivity leading to an increase in potential output and a shift to the right of the LRAS curve.

## Explain how targeting specific industries can increase potential output

The government can target specific industries by giving subsidies and through the provision of tax breaks. Governments, particularly in developing economies, provide protection for **infant industries** by placing a **tariff** on imported goods in order to help the smaller domestic industries that do not benefit from large **economies of scale** to compete. The industries can then grow and in time will be able to compete globally. Some industries are given help by government to establish contact with international customers. This happens for example in the **arms industry**.

### Test your understanding of this unit by answering the following questions

- Explain how government intervention in research and development can affect economic growth.
- Explain how and why the government might intervene to increase the value of human capital.

## Learning Outcomes

- Explain how factors including deregulation, privatization, trade liberalization, and anti-monopoly regulation are used to encourage competition.
- Explain how factors including reducing the power of **labour unions**, reducing unemployment benefits, and abolishing minimum wages are used to make the labour market more flexible (more responsive to supply and demand).
- Explain how factors including personal income tax cuts are used to increase the incentive to work, and how cuts in business tax and capital gains tax are used to increase the incentive to invest.
- Evaluate the effectiveness of supply-side policies through consideration of factors including **time lags**, the ability to create employment, the ability to reduce inflationary pressure, the impact on economic growth, the impact on the government budget, the effect on **equity**, and the effect on the environment.

### Explain government policies that might create a more competitive business environment

#### What are the possible effects of deregulation?

**Deregulation** is the act of removing or reducing government regulations to create more competitive markets. The government might remove regulations which stop firms from competing in the market thereby making the market more competitive. For example, the government could grant more licences giving new firms the right to enter a market. In the UK in the 1980s, the government deregulated the bus industry so that new firms could enter the bus industry. The aim of such government policy is to improve **productive efficiency** and lower prices by increasing the amount of competition.

Most government regulation increases costs of production. Firms have to obey health and safety laws, and environmental laws. These add to business costs. The labour market is heavily regulated. In the European Union there are laws regulating the number of hours a person can work. Firms have to contribute to workers' pensions and pay redundancy payments to workers they lay off. All regulations increase costs of production, therefore deregulation reduces industries' costs leading to an increase in supply and a fall in unemployment. The **short-run aggregate supply** curve shifts down and to the right. Average total costs fall increasing their competitiveness. It is possible that prices will fall leading to an increase in **real income**.

#### What are the possible effects of privatization?

Privatization is the act of transferring the ownership of state-owned industry or business from the public sector to the private sector. Over the last few decades there has been a massive increase in the number of privatizations. For example, most European airlines and telecom companies previously owned by the state are now in the private sector. And since the collapse of the Soviet Union much of Russia's state-owned industries are now privately owned.

State-owned industries are **X-inefficient**. They are often large businesses and have **monopoly power**. They have no incentive to produce at lowest average total cost and are productively inefficient. It is difficult for the government to control the management of the industries. Most of the workers are members of **trade unions**, therefore wages are above the equilibrium free market wage. If an industry makes losses, even in the long-run, it will not shut down. The government pays the losses with **tax revenue**. In effect the taxpayer subsidizes the industry. For political reasons the government might continue to give subsidies to loss-making state-owned industries for a long time in order to avoid higher levels of unemployment which would be unpopular. Governments privatize industries to increase competition, thereby increasing productivity and reducing the price. Also the government does not have to give subsidies to loss-making industries.

#### What are the effects of trade liberalization?

Governments can protect their domestic industries from international competition by putting a tariff on imported goods, by setting quotas and by subsidizing domestic industry. Domestic firms can be productively inefficient and still stay in business because they are protected from the more efficient foreign competition which can supply goods to consumers at lower prices.

**Model sentence:** Trade liberalization is the removal of barriers to trade in order to make markets more competitive thereby increasing productivity, lowering prices, and increasing the quantity of goods traded.

## Glossary

**labour union(s)** organization(s) formed by workers to protect their rights

**time lag(s)** period(s) of time between two linked events

**equity** fair treatment for everyone

**deregulation** the removal of government rules/controls from business activity

## Subject vocabulary

**productive efficiency** occurs when a given quantity of output is produced at the minimum total cost per unit of output

**short-run aggregate supply** SRAS shows the amount of total output firms are willing to produce and sell in an economy at each price level in a given period of time when factor productivity and factor prices are held constant

**real income** income after taking into account the effects of inflation on purchasing power

**X-inefficient** a lack of technical and productive efficiency that exists in large firms

**monopoly power** the degree of control a firm has over the setting of price

**trade unions** an association of employees whose aim is to negotiate with employers over pay and working conditions using the collective power of the members of the trade union

**tax revenue** the income the government receives through the levying and collection of taxes

## Subject vocabulary

**anti-trust laws** laws to protect consumers from the consequences of monopolistic behaviour by firms, which ensure markets are competitive

**market concentration** a measure of the degree to which a relatively small number of firms control a relatively large percentage of market share

**factors of production** the inputs into the production process (land, labour, capital and entrepreneurship)

**productivity** the quantity of output per unit of input

**working conditions** a term that covers many aspects of the conditions of employment including pay, working hours, and holiday entitlement as well as the environment of the work-place including noise levels, health and safety, and employee facilities

**bargaining power** the extent to which workers can influence the decisions of firms, particularly over pay and conditions

**industrial action** collective action, such as strikes, taken by workers, usually members of a trade union, in order to gain increases in pay and/or improved working conditions

**real-wage unemployment** occurs when the real wage is above the equilibrium wage thereby causing an excess supply of labour

**wage flexibility** wages are flexible when the equilibrium wage changes quickly in response to changes in the supply of labour and/or the demand for labour

**market forces** the forces of demand and supply that interact in a competitive market and determine equilibrium price

**excess supply** occurs when quantity supplied is greater than quantity demanded

**aggregate supply** the total supply of goods and services produced in an economy at a given price level in a given time period

## Synonyms

**abolishing** ..... banning/ stopping

## What are the effects of anti-monopoly regulation?

(HL students, see Section 1.5: Theory of the firm and market structures – Monopoly.)

Monopolies have the power to set price or restrict supply. They use their monopoly power to increase price thereby increasing their profits. Governments use **anti-trust laws** to reduce monopoly power by not allowing firms to join together to become one big firm and by breaking up existing monopolies.

**Model sentence:** The aim of anti-monopoly policy is to reduce **market concentration** and **increase competition thereby increasing productive efficiency and consumer choice, and reducing the price consumers pay.**

## Give examples of anti-competitive business practices

Competition law does not allow some anti-competitive business practices. For example, predatory pricing is illegal in some countries. It occurs when a firm sets a very low price, sometimes below cost, with the intention of driving its competitors out of business and of creating a barrier to entry so that new firms cannot enter the market. However it is difficult to prove that a price cut is a deliberate attempt to drive the competition out of business rather than simply the result of price competition in a competitive market.

Other anti-competitive practices that are illegal in some countries include exclusive dealing where a retailer must only buy goods from a particular supplier, limit pricing where a monopolist sets prices at a level that is intended to stop new firms entering the industry, and dividing territories where two or more firms in the same industry agree not to compete with each other in particular areas.

## What are market-based solutions?

A market economy is one in which prices of goods and services and **factors of production** are determined by the forces of demand and supply in markets free from intervention. Market-based solutions therefore focus on changing markets so that they can operate more freely. Some economists say that free markets lead to greater competition which increases **productivity** and efficiency. (HL students, see Section 1.5: Theory of the firm and market structures – Perfect competition.)

**Model sentence:** The aim of market-based solutions is to increase the incentives for workers to supply labour and firms to invest, thereby increasing long-run aggregate supply.

## Explain how the government can make the labour market more flexible

Discussed below, under separate headings, are the ways in which government can increase labour market flexibility.

## What are the effects of reducing trade union power?

A trade union is an organization that works to look after the interests of its members who are the workers in a particular industry. A representative of the union talks with management of the industry or firm to try to get higher pay and better **working conditions**. If all the workers in an industry are members of the union, the union representative has more **bargaining power**. The threat of **industrial action** by the workers if they are not given a higher wage means that they are more likely to be given a pay rise. Therefore, wages are higher in industries that are heavily unionized. The negotiated union wage is above the equilibrium wage causing **real-wage unemployment**. Policies introduced to reduce the power of trade unions will reduce unemployment. The reduction in trade union power reduces a barrier to **wage flexibility**. If the agreed union wage rate is removed the wage can then change in response to changes in **market forces**. When there is **excess supply** of labour at the wage rate, the wage then can fall until quantity of labour demanded and the quantity of labour supplied is equal and the market clears, thereby reducing real-wage unemployment.

**Model sentence:** Reducing trade union power reduces wages and real-wage unemployment. Firms' costs of production fall and **aggregate supply** increases.

## What are the effects of abolishing the minimum wage?

A **minimum wage**, like an agreed trade union wage, is above the equilibrium wage determined by the **forces of the demand and supply** of labour. Removing the minimum wage increases labour market flexibility because the wage can change in response to changes in the demand and supply of labour. When the minimum wage is above equilibrium wage, quantity supplied of labour exceeds quantity demanded. Remove the guaranteed minimum wage and the forces of demand and supply push wages down. Firms' costs of production fall, therefore they increase supply and more workers are employed raising the potential output.



### What are the effects of reducing unemployment benefits on the incentive to work?

When the unemployment benefit a person receives is more than the wage that can be earned from working it can be argued that it is in the interest of the person not to work. People in this situation have an incentive not to work. Therefore reducing unemployment benefit below the wage will give people the incentive to work. The higher the wage is above unemployment benefit, the greater the incentive to look for work.

**Model sentence:** When there are jobs available in the economy, reducing unemployment benefit increases the incentive to work and unemployment falls thereby increasing potential output.

### What are the effects of cutting income tax on the incentive to work?

When **income tax** is reduced, **disposable income** increases: workers keep more of the money earned. Under a **progressive tax system** the rate of tax increases as income increases. Higher rates of tax discourage people who are in work from working harder and longer. The opportunity cost of leisure (not working) is the wage forgone. Reducing taxes increases the benefits of working and increases the opportunity cost of not working. Therefore as taxes fall the supply of labour onto the labour market increases.

**Model sentence:** When taxes are cut it encourages those already working to increase their supply of labour and it encourages those who are not working to supply their labour.

### What are the effects of cutting corporate taxes on the incentive to work?

Corporate taxes are taxes on company profits. If corporate tax is cut, **retained profit** increases encouraging firms to increase supply leading to a fall in unemployment. Firms have more profit to invest in new capital, training, and research and development. More investment increases the stock of capital in the country and more training increases the value of human capital. An increase in research and development leads to advances in technology and the development of new products. All this leads to an increase in the potential output of the economy, shifting the **long-run aggregate supply** curve to the right.

## Evaluate the effectiveness of supply-side policies

Set out below under separate headings is an evaluation of the effectiveness of supply-side policies.

### Discuss the effect on inflation, unemployment, and growth of supply-side policies

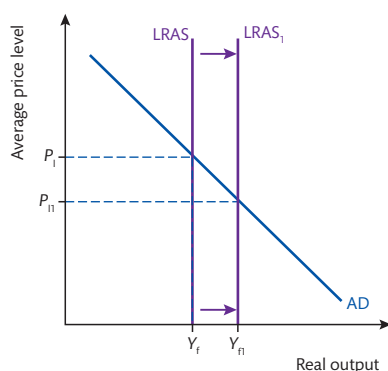


Figure 67.1

Unemployment is affected by supply-side policies. New more technologically advanced capital increases productivity. Fewer workers are needed to make the same number of goods. Without increases in demand some workers will lose their jobs. This is called **technological unemployment**.

If LRAS increases and AD at some point falls lots of firms will have spare capacity. Many factors will be unemployed. Firms that have invested in new capital now have higher costs. If **producer revenue** falls because of a lack of demand, firms' profits will fall and some will go out of business leading to a large **deflationary gap** and higher unemployment. However, if the economy is growing, and incomes and aggregate demand increase, new jobs are created and unemployment will fall. Also new goods come to market through increases in R&D, creating new demands and new jobs.

Supply-side policies lead to increases in supply and greater productivity. **Average total costs** fall and firms become more price competitive. More goods can be supplied at lower prices thereby increasing both

## Subject vocabulary

**minimum wage** the minimum amount of money a firm is legally allowed to pay a worker for one hours work

**forces of demand and supply** changes in the determinants of demand and supply in a market that affect the market price and the allocation of resources

**income tax** a direct tax on individual earnings (wages, rent, profit, interest) and paid to the government

**disposable income** household income after direct taxation has been deducted

**progressive tax system** a system of taxation in which the rate of tax increases with income

**retained profit** after-tax profit that is not paid out to shareholders but is kept by the firm to be reinvested in the business or used to pay back debt

**long-run aggregate supply** the potential level of national output of a country determined by the quantity and productivity of the factors of production

**economic growth** an increase in real GDP

**price level** the current weighted average price of a selected group of goods and services produced in a country over a period of time

**inflation** an increase in the general level of prices of goods/services in an economy over a given time period, usually a year

**aggregate demand** the total demand for goods and services in the economy at a given price level in a given period of time

**technological unemployment** unemployment caused by technological changes. It occurs when capital replaces labour in the production of goods.

**producer revenue** the income a firm receives from consumers in exchange for goods (revenue = price × quantity sold)

**deflationary gap** the situation in which the actual output of an economy is less than its potential output

**average total cost** equal to total cost divided by quantity of output

## Subject vocabulary

### current account deficit

occurs when the amount of money flowing out of a country from the trade in goods and services, investment income, and transfers is greater than the amount flowing in

### merit good

a good/service that the government believes will be under consumed left to the free market. Consumption of a merit good may generate positive externalities therefore the social benefit of consumption is greater than the private benefit. Individuals do not take into account the positive externalities when deciding the amount to consume therefore the good is underprovided and under consumed.

**budget deficit** occurs when government expenditure is greater than tax revenue

**private benefit** the benefit firms or consumers receive from their own production or consumption of a good

**external benefit** occurs when the production or consumption of a good causes a benefit to third parties

**free market** a market where the forces of demand and supply are allowed to operate without any forms of intervention

**cycle of poverty** occurs in a country which has low income and therefore low levels of savings. Low levels of savings means little investment can take place and the economy is unable to grow, thus income remains low.

**real income** income after taking into account the effects of inflation on purchasing power

**tariffs** a tax placed on imported goods and services

**quota** a physical limit placed on the number of goods that can be traded or produced

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## Glossary

**infrastructure** the basic structure/systems of a country (e.g. roads/railways)

**reform(s)** change(s)/improvement(s) to a law/system to make it fairer/more effective

domestic demand and demand for exports. Higher exports reduce the **current account deficit** and increase employment in the exporting industries.

## Discuss the effects of investment in labour and infrastructure

Supply-side policies can increase economic growth, reduce unemployment and inflation, and can reduce the current account deficit. However, there are costs of supply-side policies. The cost to the government of increasing the value of human capital through training and education and the provision of healthcare are high.

Governments of countries with relatively high national income have large tax revenues and are more able than poorer countries to pay for the high costs of these **merit goods**. Public health services, public education, and training are available to almost everyone in developed countries. In poor countries with relatively low national income, many go without. Therefore the value of human capital of a country is dependent in part on the size of the tax revenues and the ability of governments to borrow in order to continue to fund the services when the country has a **budget deficit**.

Many people in richer countries gain the **private benefits** from the consumption of these merit goods, such as the ability to earn higher income and a longer life span, and the economy gains the **external benefits** including increases in productivity leading to economic growth. Left to the **free market** these services would be underprovided and under consumed. Governments in richer countries are able to increase production and consumption, but poorer countries that lack the necessary tax revenue are not.

The benefit from the investment in **infrastructure** is not gained straightaway. Large building projects, such as a new railway or motorway, take a long time to build but are essential for long-run economic growth. Such goods are quasi-public goods which would be underprovided or not provided at all by free markets. Again poorer countries are not able to fund the building of a network of transport infrastructure or develop an up-to-date communications system. Infrastructure is essential for economic development, high productivity and growth. Poor countries get left behind because they are unable to break out of the **cycle of poverty**, and the relative poverty gap between the rich countries and the poor countries gets bigger.

## Discuss the effects of privatization and anti-monopoly laws

Consumers in many countries have benefited from privatization, and anti-monopoly laws have increased competition forcing firms to increase productivity and lower price. Prices have fallen for many goods and services, such as air flights, as competition and greater productivity have pushed prices down thereby increasing consumers' **real incomes**. Trade liberalization, the removal or reduction of **tariffs** and **quotas**, has increased competition in many industries. Domestic firms have had to increase productivity and product quality in order to survive against the foreign competition. However, those domestic firms unable to reduce their average total costs have gone out of business. Privatization and trade liberalization have led to more consumer choice, lower prices, higher real incomes, and greater consumption. However, many domestic industries did not survive leading to increases in **structural unemployment** and a fall in GDP. For example many firms in Europe in the textile industry have gone out of business because they were not able to compete against the lower priced imports from China. The increase in global trade has led to an increase in the current account deficit of many countries belonging to the European Union, including the UK, France, Spain, Portugal, and Greece.

## Discuss the effects of deregulation and labour market reforms

Deregulation and labour market **reforms** are not popular with everybody. When the local government in Rome wanted to increase the number of taxi licences thereby increasing the number of taxis for hire the taxi drivers went on strike and violent protests broke out in the city as they tried to protect their '**market power**'. Industrial action is often taken by members of trade unions when a government tries to introduce reforms that reduce their power. In many countries governments have introduced or are trying to introduce **performance-related pay** in the public sector for teachers and to end **collective national bargaining**. The trade unions representing teachers are against these reforms and teachers have taken industrial action to protect their interests.

Health and safety legislation does increase costs of production but such laws have reduced work-related injuries and deaths by a large amount. However, even with the regulation, the total cost, including **private costs** and **external costs**, in 2010/11 in the UK of workplace illness, injury, and deaths was £5.4 billion. Just over half the costs were paid by the individual, with the rest paid for by employers and the government. These costs should be taken into account by the government when considering changing health and safety laws.

There are external costs of production, such as pollution, which regulation aims to reduce. Removing regulation that controls harmful emissions would reduce costs of production but would at the same time increase the external costs leading to greater environmental damage and non-sustainable economic growth.

Removing the minimum wage would reduce further the income of those already on relatively low pay. If unemployment benefit stayed the same many workers would leave work, thereby increasing government expenditure on benefits and reducing aggregate supply. Reduction in benefits and the removal of the minimum wage could increase **absolute poverty** and **relative poverty** and lead to a less equal and less **equitable** distribution of income.

### Discuss the effects of a cut in tax

Reducing higher **marginal rate of taxes** does increase the incentive to work harder and might increase **potential output**. However, a greater tax burden would fall on those on lower incomes, thereby increasing income inequality as income is redistributed from the poor to the rich making the tax system less progressive and more inequitable. Some economists say that cutting tax leads to economic growth and higher GDP, and therefore everybody's income will be higher. Cutting taxes might increase consumer expenditure and firms' retained profit, thereby increasing aggregate demand, but at the same time tax revenue could fall increasing the government's budget deficit. The amount of the increase in consumer expenditure and investment by firms, depends on expectations concerning job security and the future levels of demand.

### Discuss the limitation of supply-side policies caused by time lags

The time it takes for a supply-side policy to have an impact on the economy after it has been introduced is normally very long. For example, occupational immobility is a cause of long-term unemployment. Those who are unemployed because they do not have the skills demanded by industries need to be trained so that they gain the skills that firms need. To increase the level of skills of the labour force so that structural unemployment falls and the **productivity gap** is reduced takes a long time.

A country may need more and better transport infrastructure to improve efficiency. However, large investment projects such as airports and roads take a long time to build and the country will not benefit from the infrastructure for a number of years.

#### Test your understanding of this unit by answering the following questions

- Explain how cutting tax might increase potential output.
- Explain how reducing trade union power and abolishing the minimum wage might increase economic growth.
- Explain how deregulation and trade liberalization might increase productivity.
- Using a diagram, explain the possible effects on growth, inflation, and unemployment of supply-side policies.
- Discuss the impact of deregulation on the economy.

#### Subject vocabulary

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**structural unemployment** unemployment caused by a change in the type of labour firms demand. It is caused by a mismatch of the skills of those unemployed and the skills needed by firms.

**current account deficit** occurs when the amount of money flowing out of a country from the trade in goods and services, investment income, and transfers is greater than the amount flowing in

**market power** the ability of a firm to change the market price of a good or service

**performance-related pay** where some or all the payment for labour is determined by how the workers perform

**collective national bargaining** where bargaining between management of firms and the representatives of the workers over pay and conditions takes place at the national level

**private costs** the cost incurred by firms or consumers from their own production or consumption of a good

**external cost** occurs when the production or consumption of a good creates a cost that must be paid by third parties

**absolute poverty** occurs when people do not have enough resources to satisfy their basic needs

**relative poverty** a measure of poverty that relates to the average income earned in a country or region. Definitions vary but many governments define it as an income less than 50% of the median income.

**marginal rates of tax** the rate of tax paid on the next unit of income earned

**potential output** the maximum output an economy can produce when all resources are efficiently employed

**productivity gap** the difference between the output per worker in one country compared with the output per worker in another country

#### Synonyms

**equitable** ..... fair/equal